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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/698,589	10/27/2000	Liliana Tejidor	9250.7	5412

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EXAMINER	
GABEL, GAILENE	
ART UNIT	**PAPER NUMBER**
1641	12

DATE MAILED: 01/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/698,589	TEJIDOR ET AL.	
	Examiner	Art Unit	
	Gailene R. Gabel	1641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 October 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-51 and 83-100* is/are pending in the application.

4a) Of the above claim(s) *95-100* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-51 and 83-94* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-51 and 83-100* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *9* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Amendment Entry

1. Applicant's amendment and response filed 10/15/02 in Paper No. 10 is acknowledged and has been entered. Claims 52-82 have been cancelled. Claims 1, 5, 6, 9, 12, 16, 17, 27, 31, 32, 35, 37, 42, 83, 88, 89, and 94 have been amended. Accordingly, claims 1-51 and 83-100 are pending. Claims 1-51 and 83-94 remain under examination.

Drawings

2. Examiner acknowledges receipt of the Formal drawings submitted and filed on 10/15/03. The substitute drawings have been approved by the draftsman.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-51 and 83-94, as amended, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is vague and indefinite in reciting, "sufficient to trigger" and "insufficient to result" because the terms "sufficient" and "insufficient" are subjective terms that lack a comparative basis for defining their metes and bounds.

Claim 1 is indefinite in failing to recite a positive limitation in the claim in reciting, "may be utilized".

Claim 10 lacks clear antecedent support in reciting, "the phospholipid mixture" because claim 9 from which it depends does not recite a "phospholipid mixture".

Claim 12 recites improper Markush language in reciting, "divalent metal cation selected from the group consisting of ... or". Change to --divalent metal cation selected from the group consisting of ... and-- for proper Markush language.

Claim 27 is indefinite in failing to recite a positive limitation in the claim in reciting, "may be utilized".

Claim 37 recites improper Markush language in reciting, "divalent metal cation selected from the group consisting of ... or". Change to --divalent metal cation selected from the group consisting of ... and-- for proper Markush language.

Claim 88 is vague and indefinite in reciting, "initiation phase" because it is unclear how the "initiation phase" relates functionally to "thrombin formation" recited in claim 1 from which it initially depends. See also claim 94.

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application

> by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 3-6, 11, 14-16, and 88 stand rejected under 35 U.S.C. 102(e) as being anticipated by Spillert et al. (US 6,245,573) for reason of record.

5. Claims 1-8, 11-13, 17, 85, and 87-88 are rejected under 35 U.S.C. 102(b) as being by anticipated by Hawkins et al. (US 5,625,036) for reason of record.

6. Claims 1-3, 5-10, 14-16, and 85-88 are rejected under 35 U.S.C. 102(b) as being by anticipated by Smirnov et al. (US 5,472,852) for reason of record.

7. Claims 1-2, 4-7, 12-17, and 83-88 are rejected under 35 U.S.C. 102(b) as being by anticipated by Kraus et al. (2,2252,983) for reason of record.

8. Claims 18-20, 25-34, 36-51, 91, and 93-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spillert et al. (US 6,245,573) or Hawkins et al. (US 5,625,036) for reason of record.

9. Claims 21-22, 27-29, 31-36, 43-47, and 91-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smirnov et al. (US 5,472,852) for reason of record.

10. Claims 23-24, 27-28, 30-33, 37-42, 46-47, 46-51, 89-91, and 94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kraus et al. (2,2252,983) for reason of record.

Response to Arguments

11. Applicant's arguments filed 10/15/02 have been fully considered but they are not persuasive.

A) Applicant states that Spillert et al. fail to anticipate and render obvious the claimed invention. Applicant argues that Spillert et al. only teach a reagent for analysis of hypercoaguability or thrombotic potential; they do not describe a reagent for analysis of hypocoagulation or bleeding tendency. Applicant also argues that Spillert et al. use the metal ions to activate the coagulation process, whereas the instant invention uses protein as the activator that is added to the sample in an amount that will only trigger thrombin generation. According to Applicant, the inventive reagent which Spillert et al. do not teach, is a trigger which is useful in assessing the connectivity and dynamics of proteins responsible for hemostatic potential on the coagulation system.

In response to applicant's argument that the references fail to show a feature of applicant's invention, it is noted that the feature upon which applicant relies (i.e., use of protein, i.e. thromboplastin specifically, tissue factor, to activate the coagulation process instead of metal ions) is not recited in the rejected claim. Specifically, use of metal ions as coagulation activator by Spillert et al. is not excluded, but rather well encompassed, by rejected claims 1 and 27, which broadly recite use of "coagulation activator". Additionally, claim 1 only implies, but does not distinctly define and recite that the coagulation activator, is the trigger for thrombin formation. Moreover, claim 1 recites that the claimed reagent may be utilized to assess (any one of) a hypocoaguable, normal, **or** hypercoaguable condition in a single assay which, likewise, does not exclude the teaching of Spillert et al. which disclose use of their reagent for analysis of hypercoaguability or thrombotic potential. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

B) Applicant states that Hawkins et al. fail to anticipate and render obvious the claimed invention. Applicant argues that Hawkins et al. only teach a prothrombin reagent for analysis of hypocoaguability or bleeding risk; they do not describe a reagent for analysis of coagulation function to include both hypocoagulation and hypercoagulation, i.e. global hemostatic potential. Applicant also argues that Hawkins et al. does not describe a reagent which includes a coagulation activator having a concentration that permits assessment of both hypercoagulation and hypocoagulation.

In response to applicant's argument that the references fail to show a feature of applicant's invention, it is noted that the feature upon which applicant relies (i.e., reagent which includes a coagulation activator that triggers thrombin formation so as to permit assessment of both hypercoagulation and hypocoagulation, by virtue its concentration) is not recited in the rejected claim. Specifically, claim 1 recites that the claimed reagent may be utilized to assess (any one of) a hypocoaguable, normal, **or** hypercoaguable condition in a single assay; therefore, it does not exclude the teaching of Hawkins et al. which disclose a reagent comprising recombinant or purified human tissue factor, phospholipids of natural or synthetic origin, metal salt, buffer composition, and stabilizers, i.e. glycine or dextrans, at varying concentrations for analysis of hypocoaguability or bleeding risk.

C) Applicant states that Smirnov et al. fail to anticipate and render obvious the claimed invention. Applicant argues that Smirnov et al. only teach a reagent for use in determining the propensity of a patient for thrombotic disease; thrombotic disease involves only hypercoaguability and not hypocoaguability. Applicant contends that Smirnov et al. do not describe a reagent for analysis of coagulation function including all of hypocoagulation, normal, and hypercoagulation condition in a single assay. Applicant also argues that Smirnov et al. does not describe the claimed reagent which includes a coagulation activator having a concentration that permits assessment of both hypercoagulation and hypocoagulation.

In response to applicant's argument that the references fail to show a feature of applicant's invention, it is noted that the feature upon which applicant relies (i.e., reagent which includes a coagulation activator that triggers thrombin formation so as to permit assessment of both hypercoagulation and hypocoagulation by virtue of its concentration) is not recited in the rejected claim. Specifically, claim 1 only recites that the claimed reagent may be utilized to assess (any one of) a hypocoaguable, normal, **or** hypercoaguable condition in a single assay; therefore, it does not exclude the teaching of Smirnov et al. which disclose a reagent comprising a Tissue Factor, phospholipid component comprising effective amounts of phosphatidylethanolamine, phosphatidylserine, and phosphatidylcholine, and activated Protein C, at varying concentrations. The ratio therebetween is 10-50% PE, 5-50% PS, and the rest PC.

D) Applicant states that Kraus et al. fail to anticipate and render obvious the claimed invention. Applicant argues that Kraus et al. only teach a reagent for determining coagulation potential in a sample for analysis of hypercoaguability in thrombotic disease; they do not describe a reagent for analysis of coagulation function to include both hypocoagulation and hypercoagulation, i.e. global hemostatic potential. Applicant specifically argues that Kraus et al. only describe a reagent which includes a modulator of the protein C system added in large amounts; thus is sensitive only to anticoagulant potential, relies on measurement of time in clot initiation and does not measure fibrin polymerization.

In response to applicant's argument that the references fail to show a feature of applicant's invention, it is noted that the feature upon which applicant relies (i.e., reagent requiring a coagulation activator to trigger thrombin formation so as to permit assessment of both hypercoagulation and hypocoagulation by virtue of its concentration) is not recited in the rejected claim. Claim 1 recites only that the claimed reagent having a coagulation activator in certain measurable amounts, may be utilized to assess (any one of) a hypocoaguable, normal, **or** hypercoaguable condition in a single assay; therefore, it does not exclude the teaching of Kraus et al. of a reagent for use in determining anticoagulant potential for diagnosis of thrombotic disease comprising thromboplastin as coagulation activator, exogenous thrombomodulin to activate protein C, phospholipids, i.e. phosphatidylethanolamine, calcium ions, as well as other additional components such as wash solution, buffers, and stabilizers to optimize the coagulation test.

12. For reasons aforementioned, no claims allowed.

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gailene R Gabel whose telephone number is (703) 305-9297. The examiner can normally be reached on Monday-Thursday 6:00 AM to 3:30 PM and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long V. Le can be reached on (703) 305-3399. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4242 for regular communications and (703) 305-3014 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

Christopher L. Chin

CHRISTOPHER L. CHIN
PRIMARY EXAMINER
GROUP ~~1800~~ 1641

Gailene R. Gabel
January 7, 2003